

REMARKS

Claim 1 has been amended to incorporate the subject matter of claim 5, which has been cancelled. Claim 11 has been amended to depend on claim 1 instead of cancelled claim 3, thereby obviating the Examiner's objection.

The present amendment contains no new matter.

The Invention

The present invention relates to a portable object, such as a timepiece, including a piezoelectric transducer. A major problem solved by the invention is to determine whether the piezoelectric transducer is operating as a vibration source for an acoustic generator or as a pressure sensor when a mechanical pressure is exerted. To accomplish this, the invention filters the high frequency signal present at the terminals of the transducer when this transducer operates as a sound generator in order to prevent the signal from propagating to the amplification and conversion stages (see Specification, p. 6, lines 26-34). If the high frequency signal reaches the conversion stage, it will be converted by the conversion stage into erroneous data which will be taken into account by the microprocessor.

The present invention solves this problem by mounting a filter at the terminals of the piezoelectric transducer. High frequency signals are no longer allowed to pass, whereas at low frequency, when the transducer is acted upon as a sensor, the signal can pass. This approach has the further advantage that data can be simultaneously entered via pressure on the watch while the transducer concurrently operates as a sound generator.

The Rejections

Claims 1, 2, and 4-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over McKee (U.S. Patent 4,761,582) [hereinafter “McKee”] in view of Murakami et al. (U.S. Patent 4,769,797 [hereinafter “Murakami”]).

Arguments

McKee discloses an electroacoustic transducer including an output mode for generating an alert signal, and an input mode. McKee teaches a switch 46 to alternate between the two modes (Fig. 4 and col. 5 lines 14-51). The use of a switch to alternate between the two modes is completely different from the present invention, which uses a filter to distinguish between input and output signals, and which is capable of simultaneous use as an input and output device. By using a switch, McKee cannot operate simultaneously as a sound generator and pressure sensor. McKee fails to teach, or even suggest, “the first electronic circuit further including means for filtering the acoustic pulses generated by the piezoelectric transducer when the latter operates as a sound generator” as disclosed in claim 1 as currently amended. Because none of the references teach a filter as disclosed in the present invention, Applicants respectfully traverse the §103 rejection.

Furthermore, the examiner states that McKee would inherently include a display means (Office Action dated April 23, 2004, page 3, lines 13-15). This appears to be an official notice, however no concrete evidence is provided. Such an assertion must be supported by concrete evidence. In re Zurko, 258 F.3d 1379, 1386, 59 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001); In re Lee 61 U.S.P.Q.2d 1430, 1434-1435 (Fed. Cir. 2002).

Applicants further traverse each of the other official notices in the Office Action (pp. 4-6) regarding the type of filter, the type of amplification and conversion means, the type of

inverter means, and the type of resistor, because no concrete evidence has been provided for any of these notices. Id. Applicants therefore respectfully request that the Examiner either provide evidence supporting each official notice, or withdraw the rejection based on that notice.

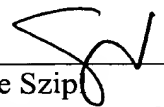
Conclusion

For all of the above reasons, claims 1, 2, 4, and 6-15 are now in condition for allowance. Therefore, Applicants respectfully traverse the rejections, request reconsideration of the application, and earnestly solicit a prompt notice of allowance.

Questions are welcomed by the below signed attorney for the Applicants.

Respectfully submitted,

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